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Germ City: Clean Hands, Healthy People

USDA National Integrated Food Safety Initiative
Integrated Research, Education, and Extension

“People are more afraid of things that don't kill them than the things that do.”

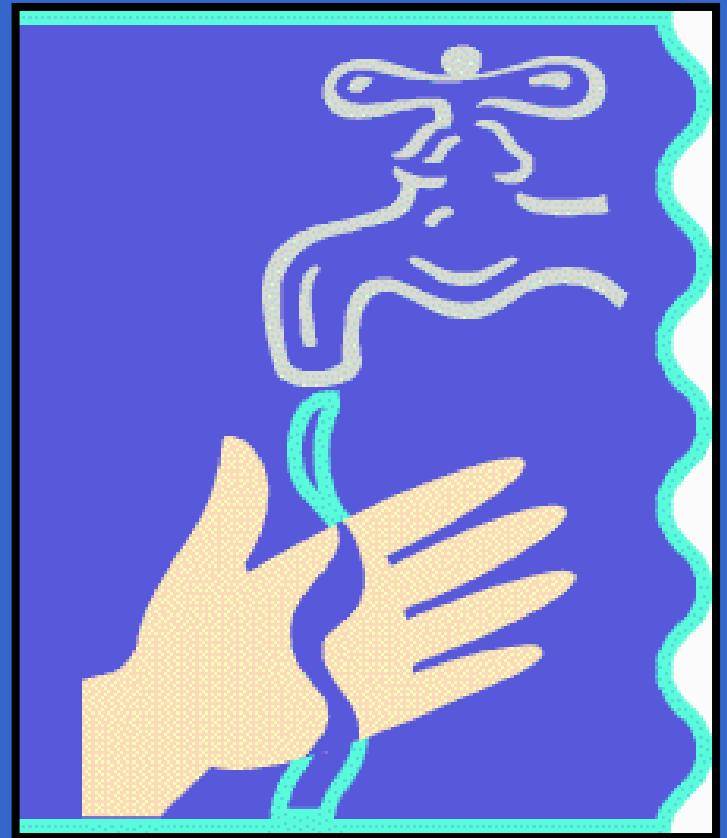
Peter Sandman



Good Health is in Our Hands

“Handwashing is the single most important means of preventing the spread of infection.”

Centers for Disease Control - Atlanta



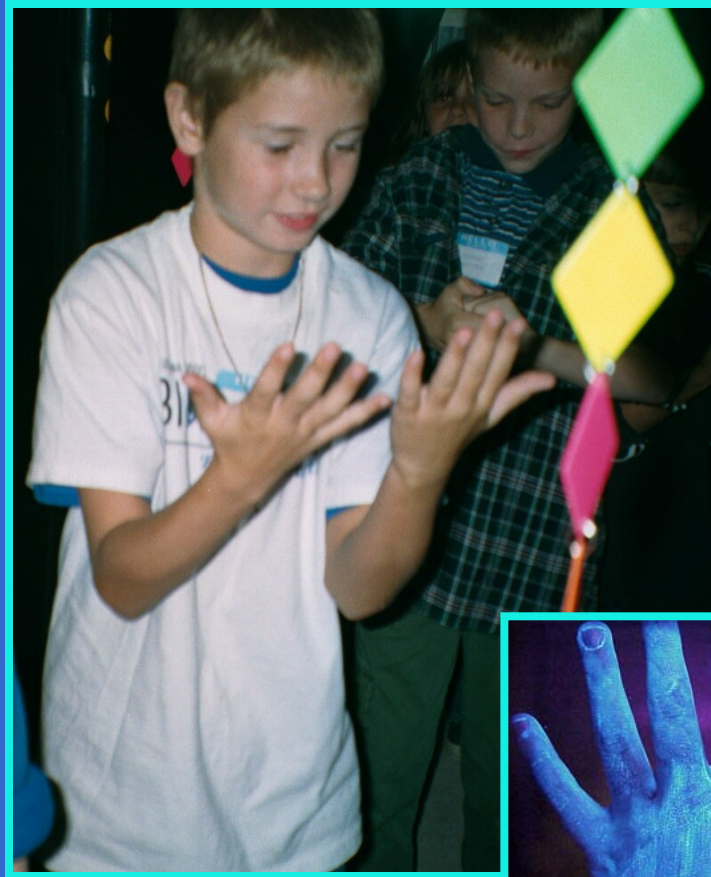
Germ City is.....

**Large Tunnel –
with Black Lights
Portable
Handicap Accessible**



The Germ City "Experience"

- Apply lotion
- Walk thru tunnel
See *pretend* germs.
- Wash hands with soap & warm, running water.
- Return to tunnel, assess effectiveness
- Teachable Moments



More than 400,000 Participants



- Fairs
- Festivals
- Special Events
- Schools
- Health Care Operations

Germ City Products for Schools, Fairs & Festivals

- Germ City Units
- Evaluation Tools
- Health & Science Based Curriculum: K – 8th
- Training Videos
- Support Materials
- (4) Web Sites



Goals & Objectives

Extension – Education - Research



- Enhance Awareness
- Improve Effectiveness & Frequency
- Modify Attitudes, Motivation, & Behavior
- Generate a Research Base

Evaluation in Schools

5 States
10 Locations
351 Subjects



Instruments

- Researcher's Perception of Hand Cleanliness
- Child's Perception of Hand Cleanliness
- Child's Perception of Hand Washing Behaviors
- Teachers' View of the Value of Germ City



Evaluator and Children were Asked:

As I look at the FRONT of the right hand,

The finger tips are

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

The palm is

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

The wrist is

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

As I look at the BACK of the right hand,

The fingernails are

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

The knuckles are

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

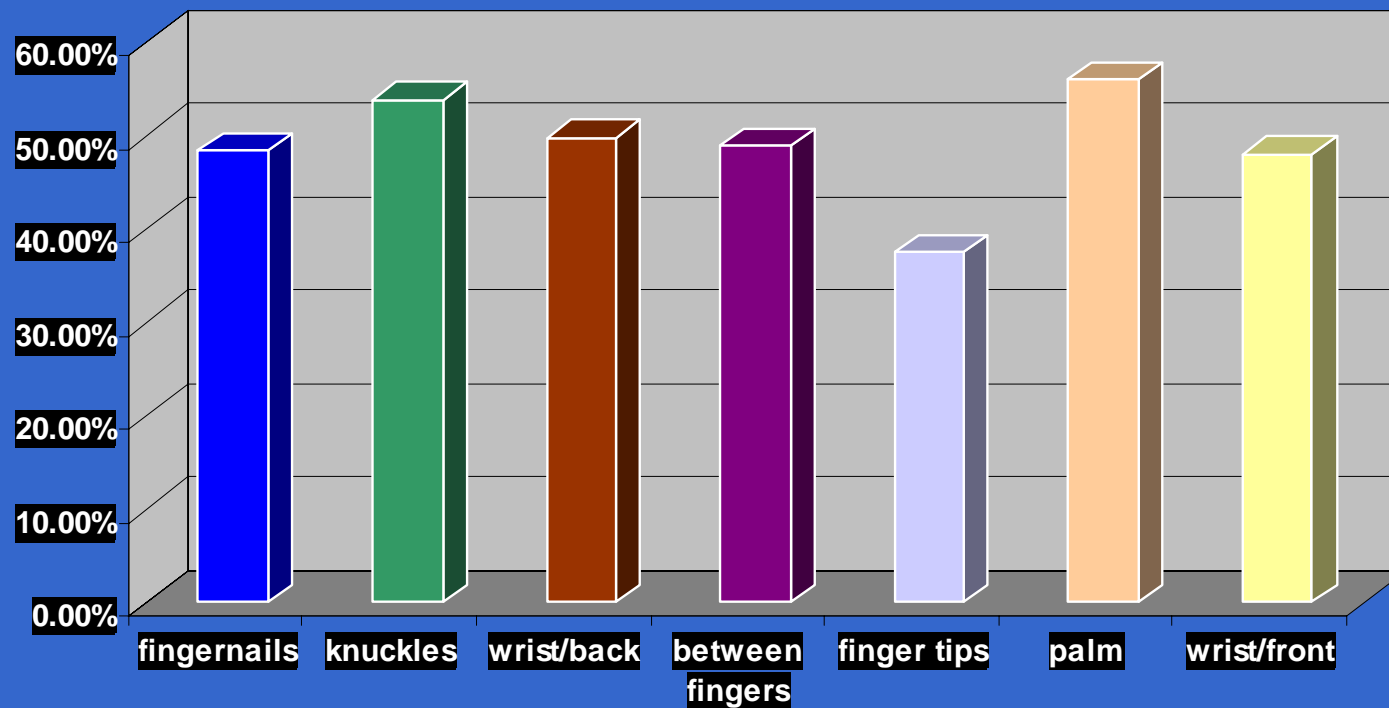
The wrist is

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

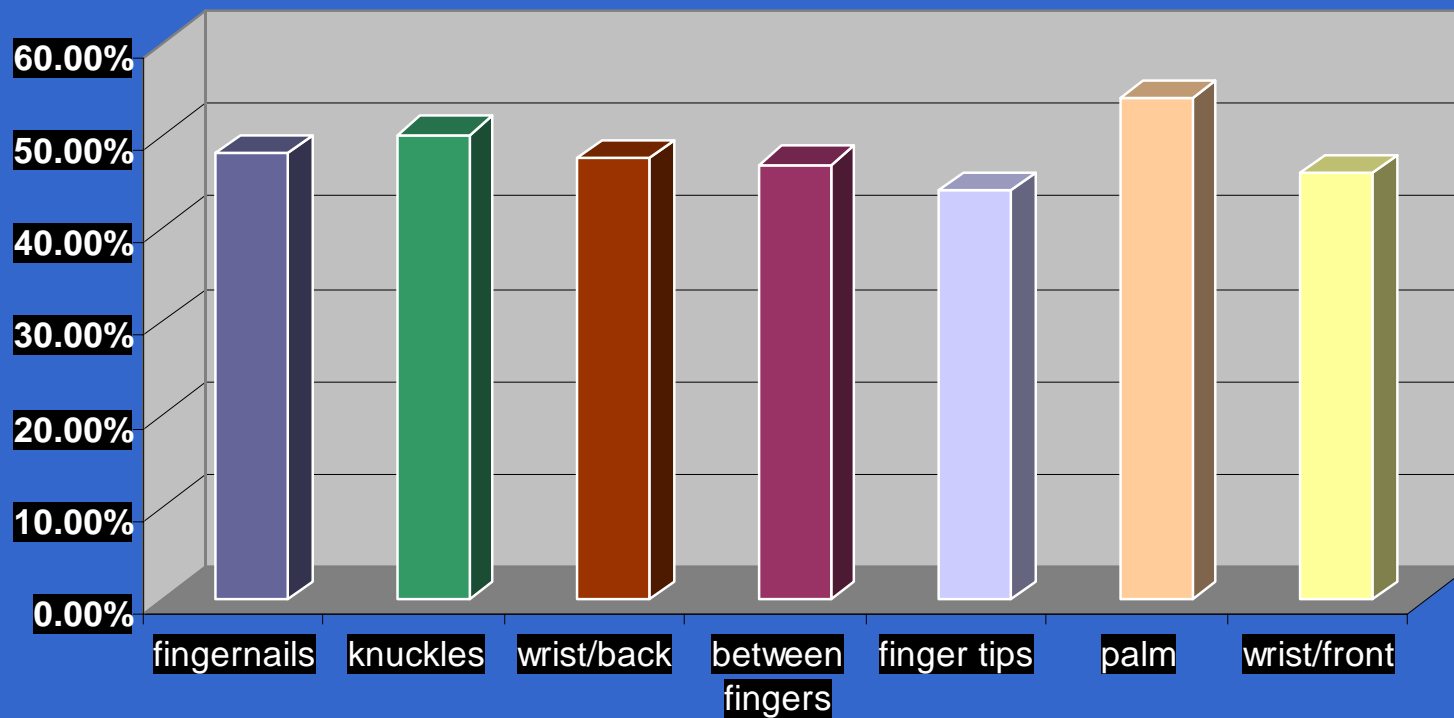
Between my fingers is

☐ Very Dirty ☐ A little dirty ☐ Pretty clean ☐ Very clean

**Percentage of Children with Cleaner Hands --
Demonstrator Observations**
(All changes were significant at the .02 level)



Percentage of Children Who Said Their Hands were Cleaner at Time 2. (All changes were significant at the .02 level)



Conclusions for School Research

- Children reported significant changes in hand washing behaviors
- Researchers and students had different perceptions of hand cleanliness. Researchers were more critical of overall hand cleanliness, but children reported less change.
- Significantly more children reported they had washed before eating and after using the restroom at Time 2.
- Germ City works well with all students. Results were better with eighth grade students and, to a lesser extent, better with girls.
- The three areas which students seem to consistently miss: fingernails, palm, and the front of the wrist.

N=351

179 4th Graders

172 8th Graders



Evaluation of Fairs & Festivals

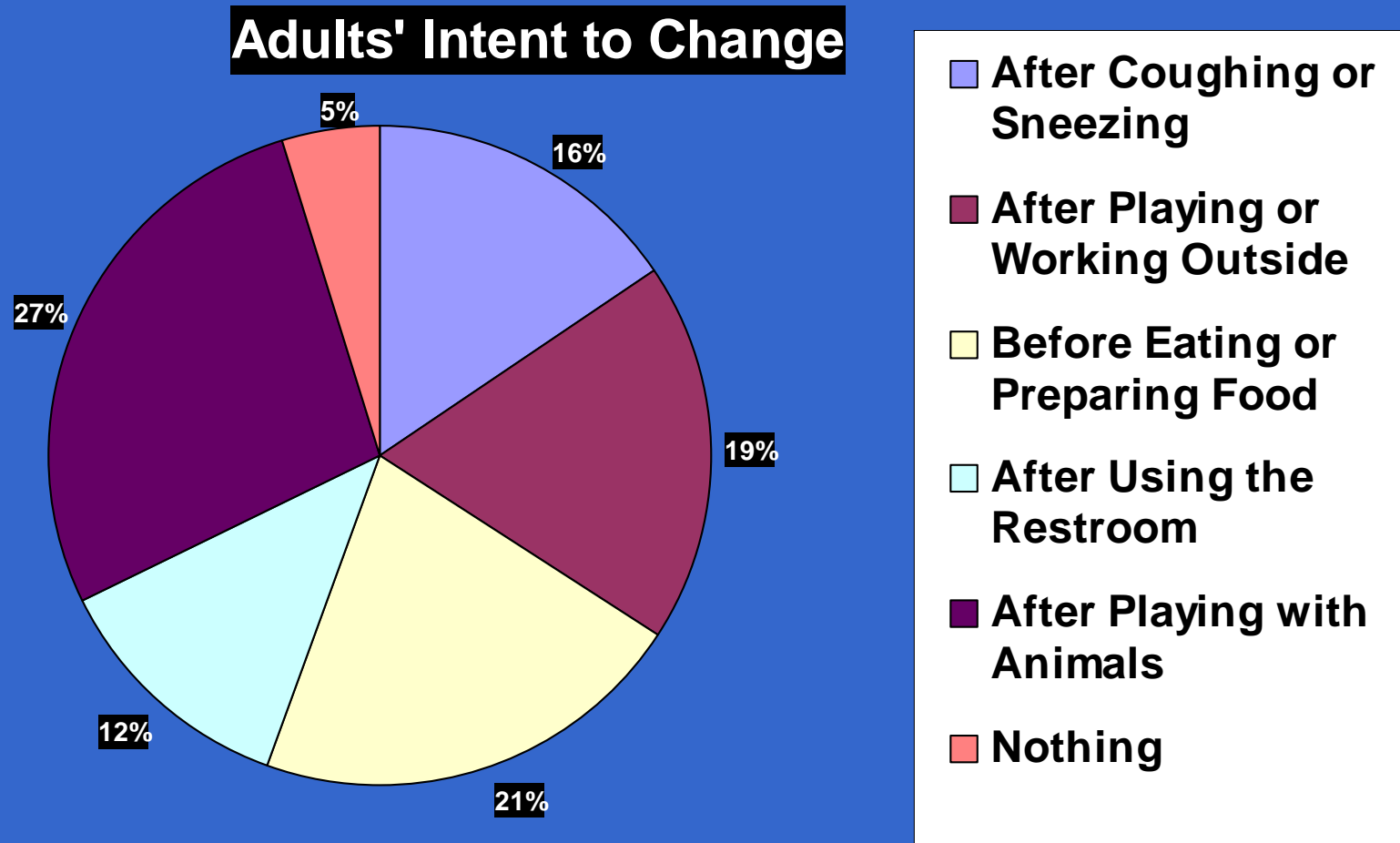
At Fairs and Festivals We Studied:



- Participants' Intent to Change
- Systems Change
- Observations and Opportunities

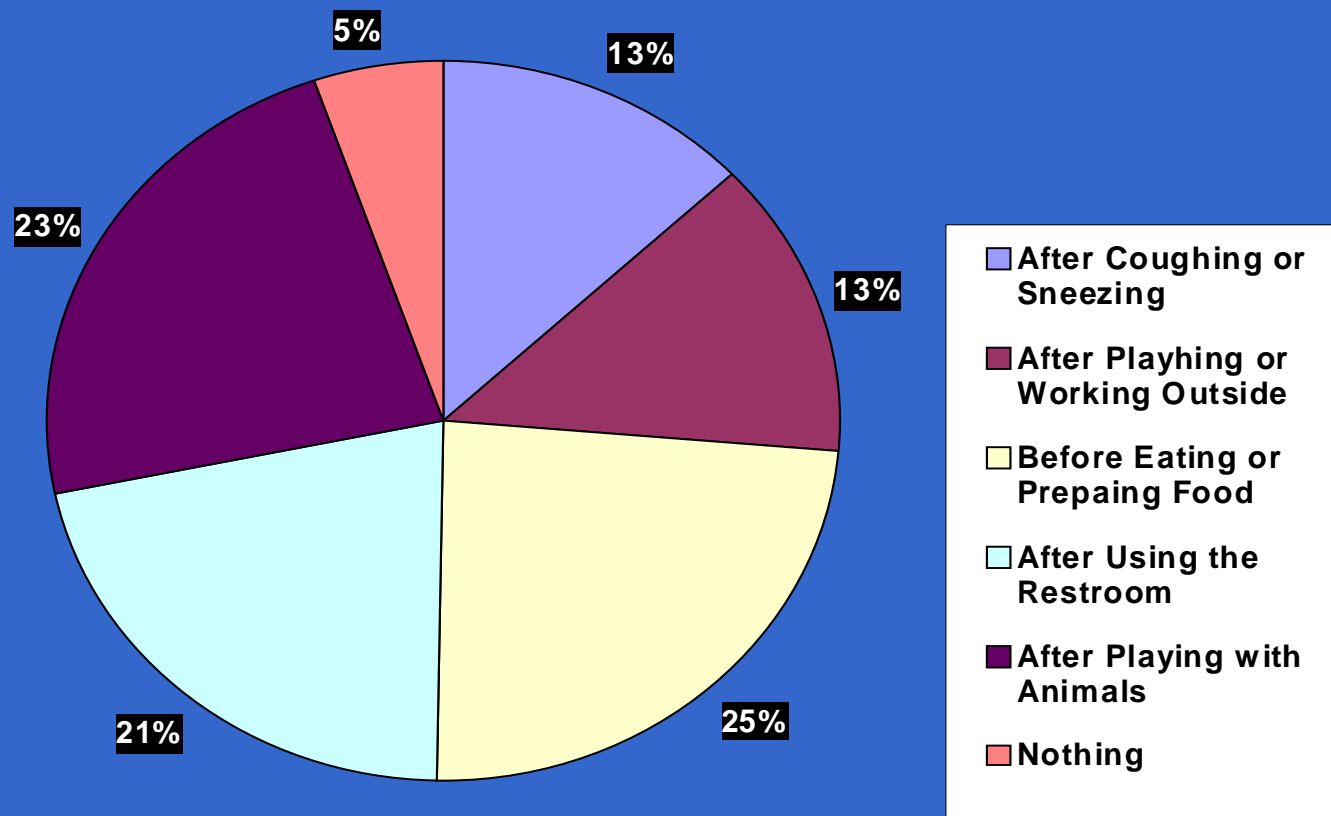


Participants' Intent to Change



Participants' Intent to Change

Childrens' Intent to Change



System Change

Impacts – Western WA - Puyallup Fair

Immediate, measurable evidence of Change

- 1998 Attendance 1,229,007
1999 Attendance 1,238,029
- Soap usage doubled from 300 gallons in 98' to 600 gallons in 99'
- Additional 180 gallons of sanitizers used in 28 newly installed waterless stations.

Observations and Opportunities



Benefits



- Improves Hand Washing Skills
- Positively Changes Hand Washing Behaviors
- Adaptable for a Variety of Ages & Settings
- New Insights for Measuring Hand Washing Effectiveness
- State Education Standards for Science & Health
- Portable, Transportable, Meets Safety Standards
- New Collaborations and Work Across Disciplines

National Program Outreach

Western Illinois University
University of Arizona
University of California - Davis
University of Vermont
University of Tennessee - EFNEP
West Virginia State University
University of Hawaii
Alabama A & M University
University of Idaho
West Virginia University
West Virginia State University
Washington State University
Buffalo, NY – FDA
Eugene, OR – Lane County Events
Florida State Fair
Erie County Fair – Buffalo, NY
St. Lucie Fair – Florida
Donnell Century Farm - TN



National Presentations



- International Association of Fairs & Expositions
- Thinking Globally – Working Locally USDA Food Safety Conference
- Priester Health & Safety Conference
- National Environmental Health Association Conference
- CYFAR Conference
- SafeFood 2010: University of Arizona
- Society for Nutrition Education
- National Restaurant Association
- American School Food Service Association Conference
- CDC Health Directors and Promotion Conference

Program Recognition for Germ City

- Excellence in Research, National Award, NEAFCS
- Florence Hall Award, National Award, NEAFCS
- Food Safety Award, Western Region, NEAFCS
- National Program of Excellence, CSREES
- Innovative Health Program for Healthy People and Healthy Communities, www.nng.org
- Featured Example of Innovative Programming, Western Extension Leadership Development Program
- Western Extension Directors Award – Current Finalist

For More Information

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